

IN THE CLAIMS

In the Claims:

1-19. (Presently Canceled)

20 - 21. (Previously Canceled)

22 - 26. (Presently Canceled)

27. (Previously Presented): A method for identifying a compound which binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:5, the method comprising:

- a) contacting a cell expressing the polypeptide with a test compound under conditions suitable for binding; and
- b) determining whether the test compound binds to the polypeptide, thereby identifying a compound which binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:5.

28. (Previously Canceled)

29. (Previously Presented): A method for identifying a compound which binds to a polypeptide consisting of the amino acid sequence of SEQ ID NO:5, the method comprising:

- a) contacting a cell expressing the polypeptide with a test compound under conditions suitable for binding; and
- b) determining whether the test compound binds to the polypeptide, thereby identifying a compound which binds to a polypeptide consisting of the amino acid sequence of SEQ ID NO:5.

30 - 31. (Previously Canceled)

32. (Previously Presented): The method of any one of claims 27 or 29, wherein binding of the test compound to the polypeptide is detected by the use of an assay for a hVR-2 activity.

33. (Previously Presented): The method of claim 32, wherein said hVR-2 activity is modulation of membrane depolarization.

34. (Previously Presented): The method of claim 32, wherein said hVR-2 activity is modulation of intracellular calcium levels.

35. (Previously Presented): The method of any one of claims 27 or 29, wherein said cell expressing said polypeptide is a neuronal cell.

36. (Previously Presented): The method of any one of claims 27 or 29, wherein said compound modulates the activity of said polypeptide.

37. (Previously Presented): A method for identifying a compound which binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:5, the method comprising:

- a) contacting a sample comprising the polypeptide with a test compound under conditions suitable for binding; and
- b) determining whether the test compound binds to the polypeptide, thereby identifying a compound which binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:5.

38. (Previously Canceled)

39. (Previously Presented): A method for identifying a compound which binds to a polypeptide consisting of the amino acid sequence of SEQ ID NO:5, the method comprising:

- a) contacting a sample comprising the polypeptide with a test compound under conditions suitable for binding; and
- b) determining whether the test compound binds to the polypeptide, thereby identifying a compound which binds to a polypeptide consisting of the amino acid sequence of SEQ ID NO:5.

40 - 42. (Previously Canceled)

43. (Previously Presented): The method of any one of claims 37, 39, 46 or 48, wherein binding of said test compound to said polypeptide is detected by the use of a direct binding assay.

44. (Previously Presented): The method of any one of claims 37, 39, 46 or 48, wherein binding of said test compound to said polypeptide is detected by the use of a competition binding assay.

45. (Previously Presented): The method of any one of claims 37, 39, 46 or 48, wherein said test compound modulates the activity of said polypeptide.

46. (Previously Presented): A method for identifying a compound which binds to a polypeptide that is at least 95% identical to the amino acid sequence of SEQ ID NO:5 and is capable of modulating membrane excitability in a cell, the method comprising:

- a) contacting a cell expressing the polypeptide with a test compound under conditions suitable for binding; and
- b) determining whether the test compound binds to the polypeptide, thereby identifying a compound which binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:5.

47. (Previously Canceled)

48. (Previously Presented): A method for identifying a compound which binds to a polypeptide that is at least 95% identical to the amino acid sequence of SEQ ID NO:5 and is capable of modulating membrane excitability in a cell, the method comprising:

- a) contacting the polypeptide with a test compound under conditions suitable for binding; and
- b) determining whether the test compound binds to the polypeptide, thereby identifying a compound which binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:5.

49. (Previously Canceled)